

1. A pharmaceutical composition comprising:

(a) a therapeutically effective amount of amlodipine;

(b) a therapeutically effective amount of an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite; and

5 (c) pharmaceutically acceptable formulation agents wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations.

2. The pharmaceutical composition of claim 1 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

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3. The pharmaceutical composition of claim 2 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.

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4. The pharmaceutical composition of claim 1 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.

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5. The pharmaceutical composition of claim 4 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.

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20 6. The pharmaceutical composition of claim 1 wherein said pharmaceutical composition reduces the risk of arterial and related heart disease.

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7. The pharmaceutical composition of claim 6 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipdemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

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8. The pharmaceutical composition of claim 1 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level consistent with a reduced risk of arterial and related heart disease.

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9. The pharmaceutical composition of claim 1 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level statistically equivalent to normal.

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10. The pharmaceutical composition of any of claims 1 through 9 wherein the synergistic lowering of blood pressure and systemic lipid concentrations results at least partially from a synergistic inhibition of cholesterol crystal formation.

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11. A pharmaceutical composition comprising:

(a) a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite; and

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(b) pharmaceutically acceptable formulation agents wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations at least partially as a result of a synergistic inhibition of cholesterol crystal formation.

5 12. The pharmaceutical composition of claim 11 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

13. The pharmaceutical composition of claim 12 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.

14. The pharmaceutical composition of claim 11 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.

15. The pharmaceutical composition of claim 14 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.

16. The pharmaceutical composition of claim 11 wherein said pharmaceutical composition reduces the risk of arterial and related heart disease.

20 17. The pharmaceutical composition of claim 16 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipidemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

18. The pharmaceutical composition of claim 11 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level consistent with a reduced risk of arterial and related heart disease.

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19. The pharmaceutical composition of claim 11 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level statistically equivalent to normal.

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20. A pharmaceutical composition comprising:

(a) a therapeutically effective amount of amlodipine;
(b) a therapeutically effective amount of an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite; and
(c) pharmaceutically acceptable formulation agents wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations.

21. The pharmaceutical composition of claim 20 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

20 22. The pharmaceutical composition of claim 21 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.

23. The pharmaceutical composition of claim 20 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.

24. The pharmaceutical composition of claim 23 wherein the therapeutically effective derivative
5 of the atorvastatin compound is a hemicalcium salt.

25. The pharmaceutical composition of claim 20 wherein said pharmaceutical composition
reduces the risk of arterial and related heart disease.

10 26. The pharmaceutical composition of claim 25 wherein said arterial and related heart disease is
selected from the group consisting of hypertension, hyperlipdemia, atherosclerosis,
arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke,
and angina pectoris.

15 27. The pharmaceutical composition of claim 20 wherein said pharmaceutical composition
synergistically lowers blood pressure and systemic lipid concentrations to a level consistent with
a reduced risk of arterial and related heart disease.

20 28. The pharmaceutical composition of claim 20 wherein said pharmaceutical composition
synergistically lowers blood pressure and systemic lipid concentrations to a level statistically
equivalent to normal.

29. The pharmaceutical composition of any of claims 20 through 28 wherein the synergistic lowering of blood pressure and systemic lipid concentrations results at least partially from a synergistic increase in nitric oxide production by endothelial cells.

5 30. A pharmaceutical composition comprising:

(a) a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite; and

(b) pharmaceutically acceptable formulation agents wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations at least partially as a result of a synergistic increase in nitric oxide production by endothelial cells.

10 31. The pharmaceutical composition of claim 30 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

15 32. The pharmaceutical composition of claim 31 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.

33. The pharmaceutical composition of claim 30 wherein the atorvastatin compound comprises a 20 therapeutically effective derivative of the atorvastatin compound.

34. The pharmaceutical composition of claim 33 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.

35. The pharmaceutical composition of claim 30 wherein said pharmaceutical composition reduces the risk of arterial and related heart disease.

5 36. The pharmaceutical composition of claim 35 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipdemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

10 37. The pharmaceutical composition of claim 30 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level consistent with a reduced risk of arterial and related heart disease.

15 38. The pharmaceutical composition of claim 30 wherein said pharmaceutical composition synergistically lowers blood pressure and systemic lipid concentrations to a level statistically equivalent to normal.

20 39. A method of synergistically inhibiting cholesterol crystal formation comprising administering a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite.

40. The method of claim 39 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

41. The method of claim 40 wherein the therapeutically effective derivative of amlodipine
5 comprises amlodipine besylate.

42. The method of claim 39 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.

10 43. The method of claim 42 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.

44. The method of claim 39 wherein amlodipine and the atorvastatin compound are administered
in the same therapeutic.

15 45. The method of claim 39 wherein amlodipine and the atorvastatin compound are administered as separate therapeutics.

46. The method of claim 39 wherein amlodipine and the atorvastatin compound are administered
20 at the same time.

47. The method of claim 39 wherein amlodipine and the atorvastatin compound are administered at different times.

48. The method of claim 39 wherein said pharmaceutical composition synergistically inhibits cholesterol crystal formation to an extent consistent with a reduced risk of arterial and related heart disease.

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49. The method of claim 48 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipdemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

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50. A method of synergistically increasing nitric oxide production by endothelial cells comprising administering a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite.

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51. The method of claim 50 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.

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52. The method of claim 51 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.

53. The method of claim 50 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.

54. The method of claim 53 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.

55. The method of claim 50 wherein amlodipine and the atorvastatin compound are administered 5 in the same therapeutic.

56. The method of claim 50 wherein amlodipine and the atorvastatin compound are administered as separate therapeutics.

10 57. The method of claim 50 wherein amlodipine and the atorvastatin compound are administered at the same time.

58. The method of claim 50 wherein amlodipine and the atorvastatin compound are administered at different times.

59. The method of claim 50 wherein said pharmaceutical composition synergistically increases nitric oxide production by endothelial cells to an extent consistent with a reduced risk of arterial and related heart disease.

20 60. The method of claim 59 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipidemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

61. A method of treating arterial and related heart disease comprising administering a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atovastatin and hydroxylated atorvastatin metabolite.
- 5 62. The method of claim 61 wherein amlodipine comprises a therapeutically effective derivative of amlodipine.
63. The method of claim 62 wherein the therapeutically effective derivative of amlodipine comprises amlodipine besylate.
- 10 64. The method of claim 63 wherein the atorvastatin compound comprises a therapeutically effective derivative of the atorvastatin compound.
65. The method of claim 64 wherein the therapeutically effective derivative of the atorvastatin compound is a hemicalcium salt.
66. The method of claim 61 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipdemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.
- 20 67. The method of claim 61 wherein amlodipine and the atorvastatin compound are administered in the same therapeutic.

68. The method of claim 61 wherein amlodipine and the atorvastatin compound are administered as separate therapeutics.

69. The method of claim 61 wherein amlodipine and the atorvastatin compound are administered 5 at the same time.

70. The method of claim 61 wherein amlodipine and the atorvastatin compound are administered 10 at different times.

71. The method of any of claims 61 through 70 wherein the treatment of arterial and related heart 10¹⁰ disease is at least partially a result of a process selected from the group consisting of reduced lipid oxidation, inhibited cholesterol crystal formation, and increased nitric oxide production 10¹⁵ from endothelial cells.

72. A method of lowering blood pressure and systemic lipid concentrations comprising 15²⁰ administering a therapeutically effective amount of a combination of amlodipine and an atorvastatin compound selected from the group consisting of atorvastatin and hydroxylated atorvastatin metabolite.

73. The method of claim 71 wherein amlodipine comprises a therapeutically effective derivative 20²⁵ of amlodipine.

73. The method of claim 72 wherein the therapeutically effective derivative of amlodipine
comprises amlodipine besylate.

74. The method of claim 73 wherein the atorvastatin compound comprises a therapeutically
5 effective derivative of the atorvastatin compound.

75. The method of claim 74 wherein the therapeutically effective derivative of the atorvastatin
compound is a hemicalcium salt.

76. The method of claim 71 wherein amlodipine and the atorvastatin compound are administered
10 in the same therapeutic.

77. The method of claim 71 wherein amlodipine and the atorvastatin compound are administered
15 as separate therapeutics.

78. The method of claim 71 wherein amlodipine and the atorvastatin compound are administered
20 at the same time.

79. The method of claim 71 wherein amlodipine and the atorvastatin compound are administered
20 at different times.

8 180. The method of claim 71 wherein said pharmaceutical composition lowers blood pressure and systemic lipid concentrations to a level consistent with a reduced risk of arterial and related heart disease.

5 82 181. The method of claim 80 wherein said arterial and related heart disease is selected from the group consisting of hypertension, hyperlipidemia, atherosclerosis, arteriosclerosis, coronary artery disease, myocardial infarction, congestive heart failure, stroke, and angina pectoris.

83 182. The method of claim 71 wherein said pharmaceutical composition lowers blood pressure and 100 systemic lipid concentrations to a level statistically equivalent to normal.

84 183. The method of any of claims 71 through 82 wherein the lowering of blood pressure and 150 systemic lipid concentrations is at least partially a result of a process selected from the group consisting of reduced lipid oxidation, inhibited cholesterol crystal formation, and increased nitric oxide production from endothelial cells.

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